

# **IMPROVING TEACHING EFFICIENCY BY USING “ACTIVITY TOOL” FOR MBA STUDENTS (Innovative Teaching Methodology/Pedagogy)**

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## (Innovative Teaching Methodology/ Pedagogy)

**T**HE future is full of challenges and risk. The purpose of management education is to prepare students for facing the challenges. The Management faculty has to come out from the traditional way of teaching and learning. They should not only equip themselves with new technologies but also be innovative in finding ways to enhance the knowledge and skills of the student community. The faculty should become catalysts. The time has come to redesign our education systems so as to adjust to the global effects i.e. an extended overview is required so that the education which is imparted could address the multiple and complex problems of the globalized world.

In this paper an attempt is being made to disseminate a pedagogical program which has been found useful for enhancing the skills of management graduates.

**KEY WORDS:** **TEACHING PEDAGOGY, EDUCATION**

### INTRODUCTION

Managing a business requires the knowledge of a broad range of disciplines so that a number of perspectives can be brought to bear on business problems and decision making. Management students learn the basics from a management course, which can be applied to business organizations of all kinds. Study of management subjects provides an understanding of the areas of knowledge that are fundamental to the administration and management of individual business and also to all other types of organizations. Modern society cannot achieve the aim of economic growth and higher cultural standards without making effective use of the talents of the citizens particularly well-trained managers.

Every year thousands of students are awarded management degrees in various functional areas, which include both degrees awarded by various universities and degrees awarded by many distance education institutions. Due to the great explosion of population in India, number of students seeking management education is also increasing and there is a massification of education in India. This quantitative growth of students has created several problems relating to the quality of education imparted. Over the years there has been an increase in the number of universities, which have blindly adopted the curriculum of others so that the courses are totally irrelevant and not only inappropriate to the local requirements but also in the changed scenario of globalization.

The future is full of challenges and risk. The purpose of management education is to prepare students for facing the challenges. The Management faculty has to come out from the traditional way of teaching and learning. They should not only equip themselves with new technologies but also be innovative in finding ways to enhance the knowledge and skills of the student community. The faculty should become catalysts. The time has come to redesign our education systems so as to adjust to the global effects i.e. an extended overview is required so that the education which is imparted could address the multiple and complex problems of the globalized world.

In this paper an attempt is being made to disseminate a pedagogical program which has been found useful for enhancing the skills of management graduates.

## VISTAS IN TEACHING

In a classroom teaching situation the principles are taught without considering the profile of the students. The pedagogy cannot be changed because of time constraints. But for teaching technical subjects such an attempt can be made in order to make the technical subject more understandable.

## OBJECTIVES

The foregoing paragraphs have given the background of this research paper. Different aspects of the study i.e. management education, students expectations and enhancing the student's understanding, have been described.

This study is related to an experiment which was carried out in the Department of Management Science, Pune University, Pune – India. The methodology and other related matters are dealt with separately.

It is a matter of interest for any student to undertake the study with certain objectives, and these are outlined hereunder. The relationship between these variables has been providing a background for the study.

The study is undertaken with the following objectives.

1. To study the heterogeneous group of students admitted to the MBA course.
2. To study the educational background of the students.
3. To find out the most effective way to teach MOM (Manufacturing & Operations Management) which cannot be taught without referring to practical examples from the industries and where it is very difficult to make the student visualize the things which they have never seen..

4. To observe the impact of using activity as a tool for teaching management students & its impact in terms of performance of the students.
5. To enhance the level of learning of the students in understanding the operational part of the production process.
6. To assign the students to work on an activity ( closer to on the job training)
7. To measure the efficiency by understanding the difference between the scores of students learning through activity done students and those who have not done the activity.

This is done through:

1. Written test comprising question on activity related and general non- activity related questions.
2. Written test of students with same composition of questions but who were asked to repeat the activity termed here as reactivity.
3. To map the score of the students and infer on increase in learning level and its correlation with using activity as a tool resulting in more effective teaching.

For this reason two groups were made.

- A. Participating in activities.
- B. Not participating in activity.

## HYPOTHESIS

1. Classroom teaching does not deliver in manufacturing and operations management the complete understanding of the concept.
2. If students do not participate in activities, there is difference between comprehension level of those who have participated and those who have not participated.
3. Activity participation, assessment by answering activity related questions minimizes the gap of comprehension as well as difficulty level of the teacher.

## BACKDROP OF THE STUDY

### **STUDENTS PROFILE**

- a) As the students for the course come through CET (Common Entrance Test) conducted by the state government, the candidates are heterogeneous.
- b) Educational background of the students is varied as eligibility for this course is any graduate.

- c) As MOM (Manufacturing & Operations Management) is a subject which cannot be taught without referring to practical examples from the industries, it is very difficult to make the students visualize the things which they have never seen.
- d) There is no compulsion of work experience for enrollment to the course.

The difficulty arises because the contents cannot be easily comprehensible to students since they do not have familiarity with the objects and means, like machines, tools, equipments, jigs, fixtures etc.

Because of the above four factors difficulty level of teaching is higher as compared to other subjects.

## **SUBJECT**

MBA students are generally subjected to classroom teaching in B schools. Majority of the subjects are expected to be taught at conceptual level. However, teaching a subject like Production Management in classroom increases the difficulty level in teaching. This probably is owing to the reasons mentioned above.

## **GAP VIRTUAL REALITY**

As MOM cannot be thoroughly understood without taking practical examples from industries, it's a real challenge for the faculty to reduce the gap between classroom based visualizatataion of actual working in the industries and hands on experience.

This GAP can be bridged to a large extent with the help of

1. Films
2. Activity
3. Reworking of activity
  - a. Films: Showing short films of basic machines and their functioning.
  - b. Activity: After completion of every topic one can design an activity & ask the students to carry out the activity in a group where they can apply their minds to a practical situation and apply the theory, concepts, they have learned in the class room. This helps them to apply their information to practical situations & due to discussion in the group it helps in developing insights essential for skilled operations.
  - c. Reworking of activity: Here the faculty assesses the activity and gives the feedback with corrected answers. Then the students are again asked to form the same groups and redo the activity. Here it is expected that students should discuss how they had judged wrongly, where they went wrong, what assumptions and examples they had considered etc.

## IDENTIFICATION OF THE PROBLEM

Research problem- GAP in application of learning to the operational part, which is dealing with technology

### **CONCEPTUAL PART (WHAT IS IT?)**

The conceptual part explains the system of using any technology e.g. A lathe machine as a system can be explained in a classroom as that which takes in material as an input, undergoes the operations of threading ( as a process ) and the output is a threaded screw. This process of threading an aluminium bar and converting into a screw of desired dimension or specifications can be conceptualized. However, to get the quality and optimum quantity, the operational insights are essential. This can be transferred in a classroom teaching.

### **DEFINITIONAL PART (HOW IT IS?)**

- A. Difficulties of a faculty member: Learning technology without knowing its application and without its practice i.e. at absolute theoretical learning.
- B. Minimized – by using aids , and work assignments
- C. Ease in learning – effective transfer of information and knowledge.
- D. Selection of tools.
- E. Impact measurement

## RESEARCH METHODOLOGY

Trying the data requirement & collection feasibility: A method for collection of data was devised Different tools for collecting valid data were tried and the best available was chosen. The methodology was applied to collect the data. The data was analyzed using 100% sample, because of the limited universe size, this was feasible.

There are three divisions of around 60 students each. All the three divisions were considered for this exercise.

### **TEACHING METHODOLOGY**

1. Course 204 i.e. Operations management was taught with the help of examples from the industries.
2. Around 30 odd films (short films ranging from about 2 to 5 minutes duration) were shown to the students as relevant to the topics covered.( which was recorded by the researcher himself)

3. Exercise on the topic Location was carried out after covering the basic concepts in the class room. Students were divided into group, of six each & were asked to solve the exercise. (EXERCISE :- There were seven different types of industries & ten different factors affecting the industrial location decision for which the students were asked to discuss & rate the factors according to their importance for that particular industry, The options were
  - A. Very Important
  - B. Important
  - C. Less Important
4. Once the activity was carried out, it was assessed & the feedback with corrected answers was distributed to the respective groups. Objective was to let the students know where they had made errors.
5. Out of the three divisions A, B & C only division B was asked to redo the activity i.e. students of division B were asked to form the same groups again & discuss the activity while concentrating more on the errors (wrong answers).
6. An internal test of 15 marks was conducted for all the divisions and in that 4 marks were allocated for the location topic, Objective was to observe the effectiveness of activity tool as a teaching aid.
7. Question papers were set in such a way that it would eliminate copying and there would be no bias for any questions, (Four different question papers having different questions were set for all three divisions i.e. 3 divisions each having 4 different questions it means altogether 12 different question papers were set with not a single question repeated in any of the question papers). This was done to improve the authenticity of the research.
8. Analysis was made for all the divisions separately and was compared.

## DATA ANALYSIS

1. For the class room activity, the students absent were as follows
  - a. Div A Absent 06
  - b. Div B Absent 11
  - c. Div C Absent 24
2. Out of the students present for the activity, the performance of the students was as follows :
  - a. Div A 11 students scored less than 50%, 49 scored more than 50% marks.
  - b. Div B 23 students scored less than 50%, 30 scored more than 50% marks.
  - c. Div C 14 students scored less than 50%, 25 scored more than 50% marks.

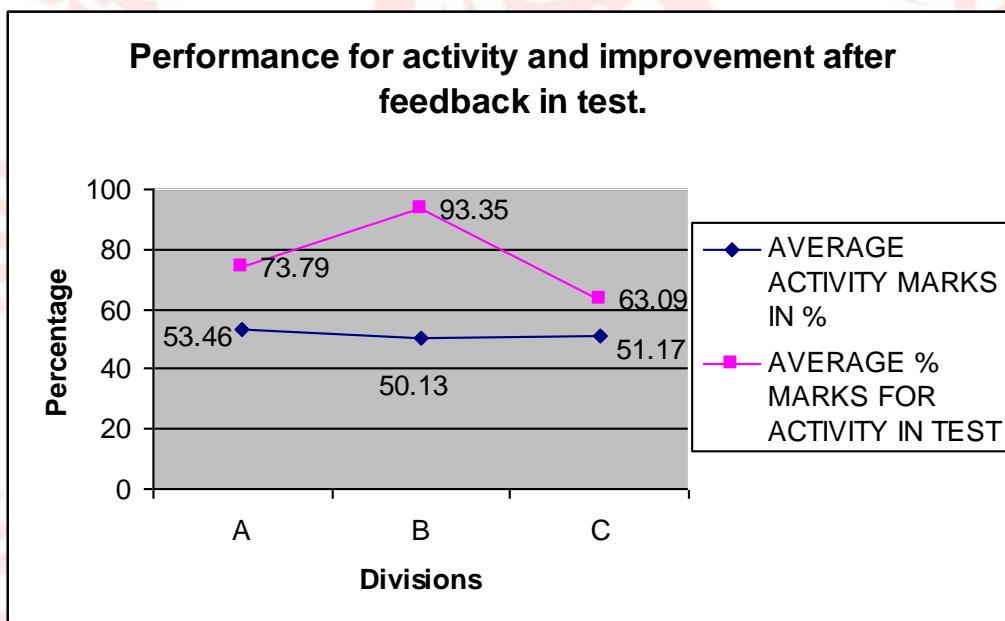
After analyzing the data, following observations were made

1. Internal question paper contained descriptive as well as objective questions.

2. Performance of all the divisions for internal test is as follows.

**Table 1: Comparison of the Performance for activity and improvement after feedback in test**

DIV (SCORE)	AVERAGE SCORE FOR ACTIVITY (A)	AVERAGE SCORE FOR ACTIVITY IN TEST (B)	AVERAGE IMPROVEMENT (B-A)
A	53.46	73.79	20.33
B	50.13	93.35	43.22
C	51.17	63.09	11.92



**Figure 1: performance after Feedback**

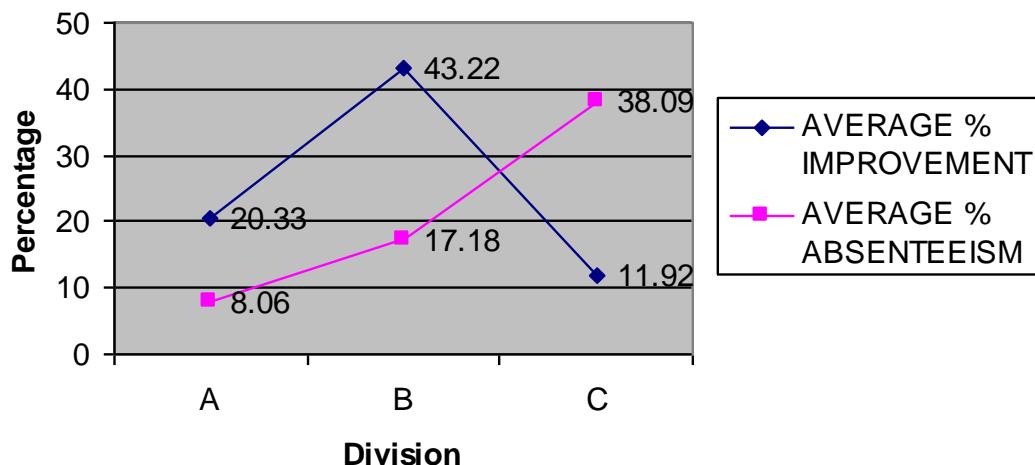
### **INFERENCE – 1**

The table clearly shows that there is an overall improvement in performance by 20.39% for A div, 43.22 % B for div, and 11.92% for C div. The above table depicts that the average % improvement in B div is 43.22%. This owes to the method of redoing which now resulted into nearly improving the understanding/ comprehension of the students.

**Table 2: Effect of students absent for the activity on the Average Performance**

DIV	AVERAGE IMPROVEMENT	AVERAGE ABSENTEES
A	20.33	8.06
B	43.22	17.18
C	11.92	38.09

### **Effect of absent students for the activity on the average performance.**

**Figure 2: Effect of Absent Students on Average Performance**

### **INFERENCE – 2**

Scores of div A and C are not comparable with div B, because the students of div B have redone the activity. In comparing scores Div A and C it is found that in Div A students performance was improved. This is a result of maximum number of absent students of Div C. Who were present for classroom teaching but did not participated in activity

**Table 3: Written test comprising question, on activity- related and general non -activity related questions**

DIV	Average score for non-activity	Average score for activity	Average difference
A	54.75	73.79	19.04
B	63.85	93.35	29.495
C	53.80	63.09	9.285

### 3) Written test comprising question on activity related and general non activity related questions

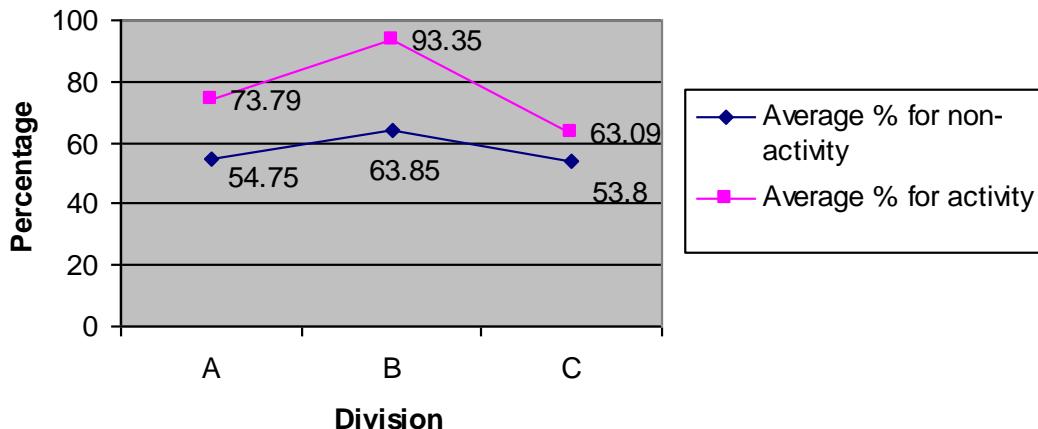


Figure 3: Written Test Performance

### INFERENCE - 3

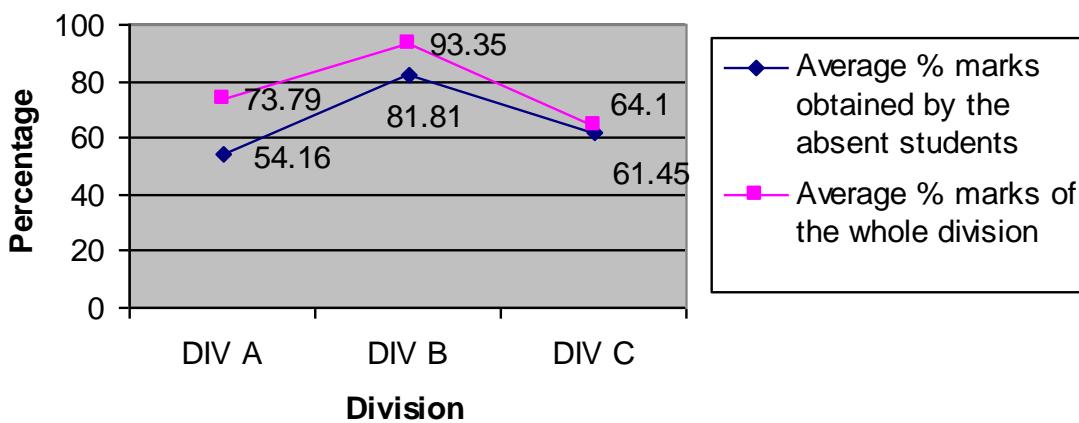
It is observed that if after teaching a particular topic some application oriented exercise is carried out it helps in enhancing the performance of the class and that is seen in all the 3 divisions.

Further, it has also been observed that after carrying out an exercise if corrected feedback is given to the students and they are asked to rework the activity, there is even further enhancement in the performance, as seen in the performance of div B.

Table 4: Effect of absent students on the performance of the class for the internal test in %.

DIV	Average marks obtained by absent students (A)	Average marks of whole division (B)	Average difference of marks (A-B)
DIV A	54.16	73.79	19.63
DIV B	81.81	93.35	11.24
DIV C	61.45	64.10	2.65

**4) Effect of absent students for the exercise carried out in the class on the performance of the class for the internal test in %.**



**Figure 4: Effect of Absent Students for internal test**

**INFERENCE - 4**

1. It is observed that there is an improvement by 25.15% in the performance of the students for the internal test due to the activity carried out in the class.
2. It has also been observed that in their internal examination the performance of the students who had not performed well has improved for the topic due to the feedback given to the students on the activity.
3. Overall performance of the students for the questions on the topic for which the activity was carried out when compared with the performance for the questions for which there was no such activity the difference in marks is 19.27% more for the activity questions.
4. Comparing the performance of the students on the activity and non- activity questions also shows that the students have performed well for the activity questions.
5. It has been observed that the redoing of the activity has benefited the students and their performance has improved from 50.13 % to 93.35% this itself proves the efficiency.

## **INFERENCE SUMMARY**

Data analysis and inferences drawn reveal that:

- A. Students who did an activity showed improvement in marks.
- B. Students who did not work for an activity have lower scores.
- C. Students after reworking the activity improved their scores even further.

## **CONCLUSION**

Using activity assignment as a teaching tool establishes that

- A. It enhances the learning level of the students of MBA in the subject Production Management for the topic Plant Location.
- B. In general Production Management subject can be taught more effectively by using an activity assignment.
- C. There is a positive correlation between using activity assignment (as a cause) and improving student's performance (as an effect).

## **FURTHER SCOPE OF RESEARCH**

The activity tool can also be used for teaching other topics in Production Management, such as:

- a) Plant layout
- b) Inventory management
- c) Maintenance
- d) Line balancing etc.

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